

**DUF<sub>6</sub>**

Depleted Uranium  
Hexafluoride  
Conversion Project

DUF6-UDS-PLN-065  
REV. 0  
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# SAFEGUARDS AND SECURITY MANAGEMENT PLAN

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**U.S. Department of Energy**  
Portsmouth Paducah Project Office  
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## Depleted Uranium Hexafluoride Conversion Project Safeguards and Security Management Plan

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## **DISCLAIMER**

This document was prepared by Uranium Disposition Services, LLC under Department of Energy Contract DE-AC05-02OR22717, and is intended for use solely in conjunction with the Depleted Uranium Hexafluoride (DUF<sub>6</sub>) Conversion Project. The information contained herein shall not be disclosed, duplicated, or released in whole or in part for any purpose other than the DUF<sub>6</sub> Conversion Project without the express written consent of the US Department of Energy and Uranium Disposition Services, LLC.

## DUF6 CONVERSION PROJECT SAFEGUARDS AND SECURITY MANAGEMENT PLAN

### Revision Summary

<b><u>TITLE:</u></b> Safeguards and Security Management Plan	<b><u>DOCUMENT NO:</u></b> DUF6-UDS-PLN-065	<b><u>REV:</u></b> 0
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## LIST OF ACRONYMS

DOE	Department of Energy
DUF <sub>6</sub>	Depleted uranium hexafluoride
ES&H/S	Environmental safety and health/security
FSO	Facility security officer
IOSC	Incidents of security concern
IT	Information technology
NMC&A	Nuclear materials control and accountability
PL	Public law
PPPO	Portsmouth Paducah Project Office
SNM	Special nuclear material
TPMC	Theta Pro2serve Management Company
UCI	Unclassified controlled information
UDS	Uranium Disposition Services, LLC
USEC	United States Enrichment Corporation
WA	Work authorization



## EXECUTIVE SUMMARY

### PROGRAM MISSION STATEMENT

The mission of the DUF<sub>6</sub> Project is to convert DOE's inventory of DUF<sub>6</sub> into a more stable chemical form, suitable for beneficial use or disposal. The project objectives include meeting the requirements of Public Law (PL) 105-204 and PL 105-206 through the design, construction, and operation of two conversion facilities (one in Paducah, Kentucky, and one near Portsmouth, Ohio). The current scope of work defined by the contract also includes surveillance and maintenance of cylinders at both sites (Portsmouth and Paducah).

The security interests associated with this project include DOE Category IV quantities of special nuclear material (SNM), unclassified controlled information (UCI), and government property. UDS does not perform any national security missions.

### SAFEGUARDS AND SECURITY PROGRAM STRUCTURE

The UDS contract (Number DE-AC05-02OR22717) is under the management of the DOE Portsmouth Paducah Project Office (PPPO). The PPPO has chosen to obtain security management and oversight support for the Paducah and Portsmouth facilities through the DOE Oak Ridge Office of Security and Emergency Management, which serves as the DOE cognizant security authority for both UDS facilities.

The UDS environmental safety and health/security (ES&H/S) manager has overall responsibility for the DUF<sub>6</sub> Project safeguards and security program. The ES&H/S manager reports to the DUF<sub>6</sub> project manager and, for health and safety issues, and reports directly to the UDS Board of Governors. A facility security officer (FSO) has been appointed at each DUF<sub>6</sub> conversion facility; he or she reports to the ES&H/S manager and DUF<sub>6</sub> plant manager.

The FSO is responsible for ensuring that the necessary safeguards and security programs and procedures (excluding cyber security) are developed and implemented at his or her respective facility.

The responsibility for unclassified cyber security lies within the UDS information technology organization, the manager is located at UDS corporate offices in Lexington, Kentucky.

The UDS safeguards and security program includes services developed and implemented within UDS, services purchased under task order from other PORTS DOE contractors, as well as "government-furnished services" [provided by the United States Enrichment Corporation (USEC) through DOE managed Work Authorization (WA) 25917, *Portsmouth Physical Security*; WA 25987 *Paducah Physical Security*, and through the site-specific DOE infrastructure contractor's security organization].



The ES&H/S manager is responsible for safeguards and security budgeting, staffing, and resource planning.

### **MANAGEMENT AND PLANNING ASSUMPTIONS**

The UDS safeguards and security posture is based on the assumption that both facilities will remain Threat Level 4 facilities, with no additional access controls required beyond DOE order compliance; a confirmatory vulnerability assessment will be conducted at each DUF<sub>6</sub> plant.

The UDS safeguards and security budget is based on the work scope and DOE order requirements currently incorporated into the UDS contract; changes to the scope of work or to DOE orders could impact the current budget, as may changes to the manner in which government-furnished services are provided. Planned safeguards and security projects currently in the construction budget include the minimum requirements of DOE M 470.2-1, *Physical Protection*.

END OF SECTION



## **1. ORGANIZATIONAL STRUCTURE AND ACCOUNTABILITY**

### **1.1 LINE MANAGEMENT ORGANIZATION**

UDS maintains corporate offices in Lexington, Kentucky. The organizational structure of the corporate offices is depicted in Attachment A. The organizational structure for UDS Portsmouth is reflected in Attachment B, and the UDS Paducah Organizational structure is shown in Attachment C.

The ES&H/S manager has overall responsibility for DUF<sub>6</sub> Project safeguards and security and has approval authority for relevant policy and programs.

The security manager at each site is assigned the role of FSO, who reports functionally to the ES&H/S manager and reports operationally to the applicable plant manager. The facility FSO is responsible for the following functions at his or her respective site:

- Determining safeguards and security requirements
- Developing program documents and procedures
- Conducting management assessments to ensure implementation
- Functioning as the inquiry official
- Interfacing with the designated points of contact for government-furnished services
- Interfacing with other site entities (at Paducah and Portsmouth) to ensure that UDS policies and procedures incorporate site-wide security concerns

The UDS FSO is responsible for interfacing with the DUF<sub>6</sub> plant manager and facility managers to ensure that the safeguards and security programs are developed in a manner that addresses operational needs, ensures compliance, and remains cost effective.

The DUF<sub>6</sub> plant manager has the opportunity to review all procedures and programs related to plant operations, and will approve site-specific procedures. The plant manager also is responsible for implementing all approved programs and ensuring that lower-level managers and supervisors effect those programs within their respective areas of responsibility.

### **1.2 COGNIZANT SECURITY AUTHORITY ORGANIZATION**

The DOE Oak Ridge Office of Security and Emergency Management is the cognizant security authority for UDS; the security office of DOE's infrastructure contractor at each site serves as the DOE facility cognizant security authority, which serves as DOE's central point of contact for site-wide DOE security issues.

The UDS FSO is responsible for interfacing with the DOE infrastructure security office on site-wide security issues and issues involving government-furnished services. The UDS FSO also interfaces with USEC security on issues associated with USEC/UDS shared spaces.

### **1.3 PORTSMOUTH ORGANIZATIONAL STRUCTURE—CONTRACTOR SITE**

UDS has overall responsibility for determining and developing the security program for the Portsmouth DUF<sub>6</sub> plant. The required security services are then obtained through one of the following methods:

1. UDS, under Contract DE-AC05-02OR22717, self-performs the following security services in support of the DUF<sub>6</sub> Project:
  - Program management (excluding vulnerability assessment)
  - Physical security
  - Information security
  - Unclassified cyber security
  - Unclassified visits and assignments by foreign nationals (with some elements completed by TPMC)
  - Visitor control (in UDS property protection areas)
2. The DOE infrastructure contractor, TPMC, provides the following government-furnished services in support of the DUF<sub>6</sub> Project:
  - Lock and key fabrication
  - Visitor control (for DOE reservation access—USEC controlled portions)
  - Security badging
  - Security education and awareness program
  - Unclassified visits and assignments by foreign nationals (including processing of associated packages prepared by UDS)
  - Vulnerability assessments
3. USEC provides the following government-furnished security services to UDS under DOE WA 25917, Portsmouth Physical Security:
  - Protective forces
  - Lock and key fabrication (for UDS facilities shared with USEC)

USEC also provides nuclear materials control and accountability (NMC&A) services through a UDS task order written to address facility-specific needs.

#### **1.4 PADUCAH ORGANIZATIONAL STRUCTURE - CONTRACTOR SITE**

UDS has overall responsibility for determining and developing the security program for the Paducah DUF<sub>6</sub> plant. The required security services are then obtained through one of the following methods:

1. UDS, under Contract DE-AC05-02OR22717, self-performs the following security services in support of the DUF<sub>6</sub> Project:
  - Program management (excluding vulnerability assessments)
  - Physical security (with locks and keys provided by Swift and Staley)
  - Information security
  - Unclassified cyber security
  - Personnel security (with badging and security education provided by Swift and Staley)
  - Unclassified visits and assignments by foreign nationals (with some elements completed by Swift and Staley)
  - Access control
2. The Paducah DOE infrastructure contractor, Swift and Staley, provides the following government-furnished services:
  - Locks and keys
  - Personnel security (badging and the security education program)
  - Unclassified visits and assignments by foreign nationals (including processing of such requests by UDS)
  - Vulnerability assessments
3. USEC provides the following government-furnished security services to UDS under a DOE WA 25987, Paducah Physical Security:
  - Protective forces

USEC also provides NMC&A services through UDS task orders written to address facility-specific needs.

END OF SECTION



## **2. ROLES, RESPONSIBILITIES, DELEGATIONS, AND AUTHORITIES**

### **2.1 IMPACTED UDS POSITIONS**

UDS positions impacted by the safeguards and security management plan include:

- UDS ES&H/S manager
- DUF<sub>6</sub> plant manager
- Paducah security manager/facility security officer
- Portsmouth security manager/facility security officer
- Information technology manager

### **2.2 CHAIN OF APPROVAL FOR PLANS AND PROCEDURES**

The UDS procedure- and policy-development process requires review and concurrence from each affected organization. The function manager (for organization-specific documents), plant manager (for site-specific documents involving multiple organizations), or the project manager (for dual-site documents) function as the “final approving authority” for UDS plans and procedures.

### **2.3 APPROVAL POLICY FOR DEVIATIONS**

Deviations from DOE safeguards and security order requirements requested on behalf of UDS are prepared by the DOE infrastructure contractor's security office and are submitted to the DOE PPPO for concurrence. Deviations are then provided to the DOE Oak Ridge Office of Security and Emergency Management for approval. If the deviation is a “waiver” or an “exception”, the DOE Oak Ridge Office of Security and Emergency Management coordinates the additional DOE approvals in accordance with DOE M 470.4-1. The approved deviation is then provided to the site DOE infrastructure contractor's security office, which in turn forwards a copy to UDS.

### **2.4 REPORTING INCIDENTS OF SECURITY CONCERN**

The facility FSO is responsible for investigating and reporting incidents of security concern (IOSC). The FSO, functioning as an inquiry official, investigates and reports to the site DOE infrastructure security office and the DOE PPPO any IOSC involving UDS. The FSO also provides information related to open and closed IOSC to the DOE infrastructure contractor's security office for inclusion into the consolidated monthly DOE IOSC report.

END OF SECTION





### **3. SAFEGUARDS AND SECURITY PROGRAM IMPLEMENTATION**

The UDS security program for each DUF<sub>6</sub> plant is documented in a site security plan, which describes the UDS security program and discusses all security topics applicable to UDS. Lower-level implementing procedures, which assign responsibilities and provide detailed step-by-step instructions on how to accomplish a given security task, are developed to flow down safeguards and security requirements.

The development process for UDS procedures, policies, and plans includes an extensive review cycle, which requires that any affected organization review and concur with the document. This interaction ensures that all organizational elements have appropriate input into program development.

Implementation of the safeguards and security program is analyzed through management assessments conducted by the FSO, ES&H/S manager, or internal audit organization. In some cases (e.g., for NMC&A), additional management assessments are conducted by the service provider. Findings identified in management assessments are documented in a condition report, recorded in the UDS electronic database, and tracked until closure.

END OF SECTION



## **4. PLANNING AND BUDGET**

### **4.1 PLANNING ASSUMPTIONS**

UDS has defined a system of internal management assessments coupled with external (DOE) assessments to ensure that the DUF<sub>6</sub> Project meets the mission objectives of the safeguards and security program. A description of the UDS management assessment program is provided in the individual site security plans.

The UDS safeguards and security budget is based on current DOE requirements and reflects costs for maintaining a security manager (who functions as the FSO) for each DUF<sub>6</sub> plant as well as costs associated with the purchase of NMC&A services. UDS develops an annual budget that identifies resources required for safeguards and security program implementation; each site prepares a separate budget request. Government-furnished services are budgeted by DOE and are not reflected in the UDS budget.

UDS provides information related to the level of security services required under the UDS security program to the DOE and the respective site infrastructure contractor for use in budget development.

### **4.2 ALLOCATION OF RESOURCES**

The DUF<sub>6</sub> plants are still under construction. Physical security features required for the operation of a PPA are included in the construction design. The ES&H/S manager has input into the design and cost of these systems.

The primary security activities in the ongoing work include NMC&A and access control. Significant planning activities include program and procedure development, in preparation for a DOE operational readiness review and Plant startup.

### **4.3 PROGRAM EVALUATION PLAN**

Prior to startup, the UDS security program will be evaluated as part of the operational readiness review. Follow-up evaluations will be conducted annually by the DOE Oak Ridge Office of Security and Emergency Management. UDS will continually evaluate the implementation of its programs through management assessments.

### **4.4 OPERATIONAL REQUIREMENTS**

The safeguards and security program focuses on DOE order compliance, with no additional access control requirements. Changes in existing DOE orders, or the issuance of additional requirements by the Department of Homeland Security, would require evaluation and could increase the UDS budget or the amount of government-

furnished services required. Impacts of this type would be assessed and communicated to DOE at the time the changes were reviewed for inclusion in the UDS contract.

END OF SECTION

## **5. SUPPORTING INFORMATION**

### **5.1 REFERENCES**

DOE M 470.2-1, Physical Protection.

U.S. Public Law 204. 105th Cong., July 21, 1998.

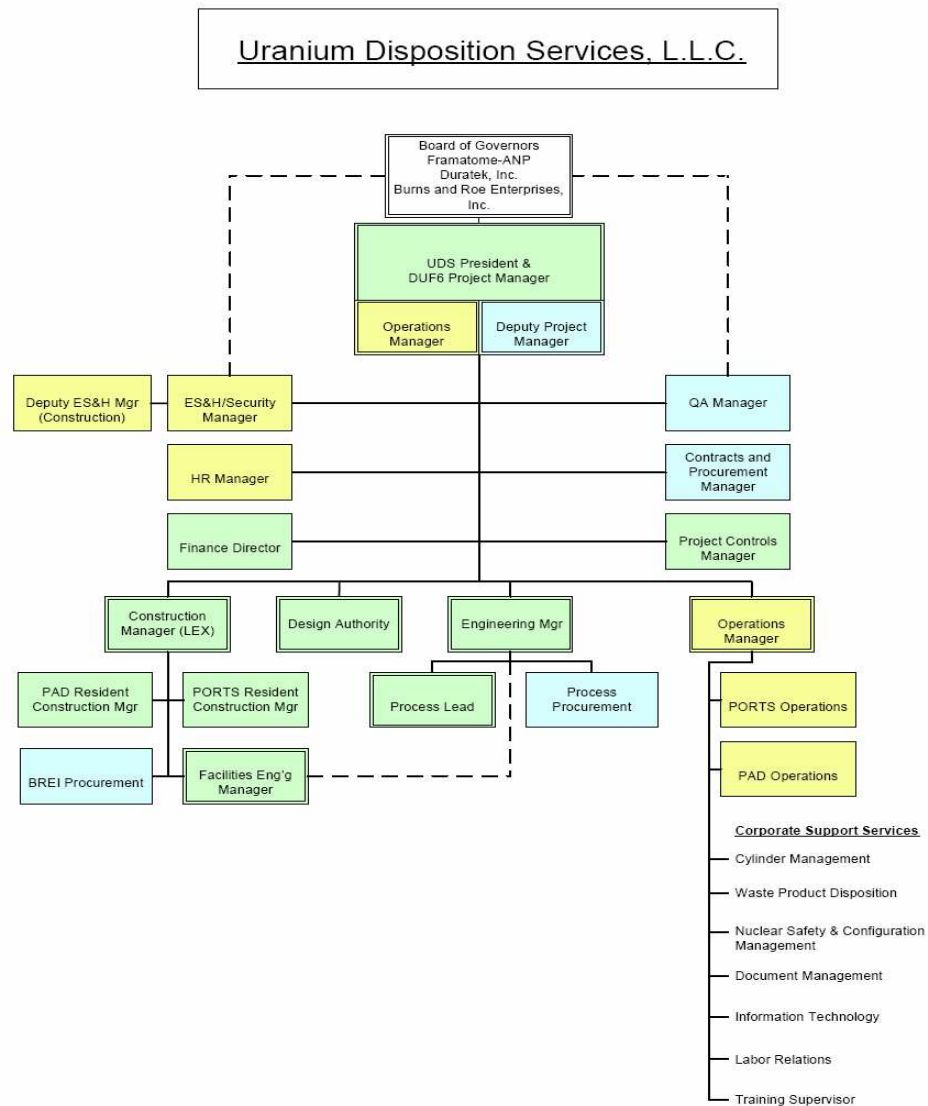
U.S. Public Law 206. 105th Cong., July 22, 1998.

END OF SECTION



## ATTACHMENT A

### ORGANIZATIONAL CHART FOR LEXINGTON





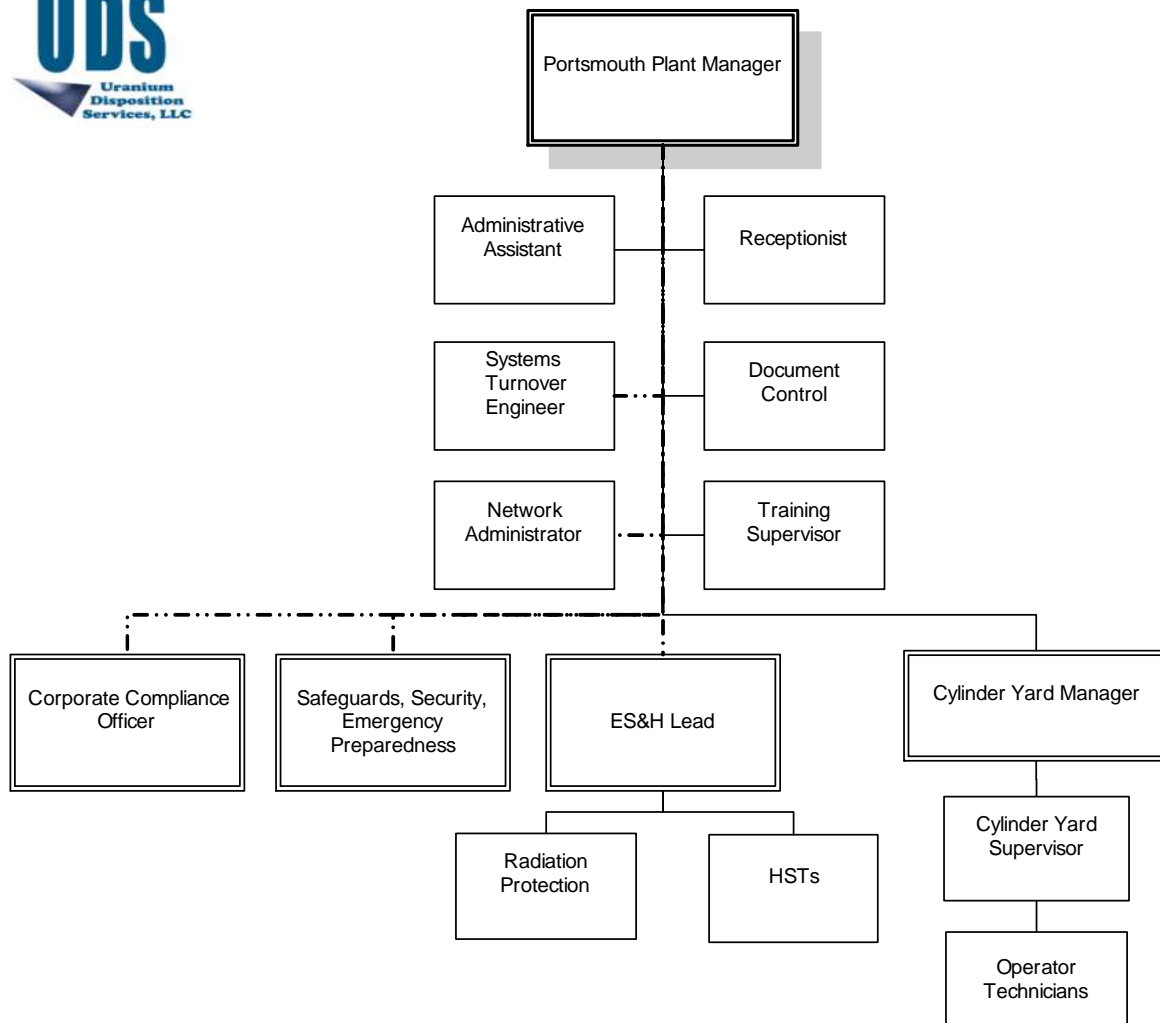


## ATTACHMENT B

### ORGANIZATIONAL CHART FOR PORTSMOUTH

#### ***Portsmouth Operations***

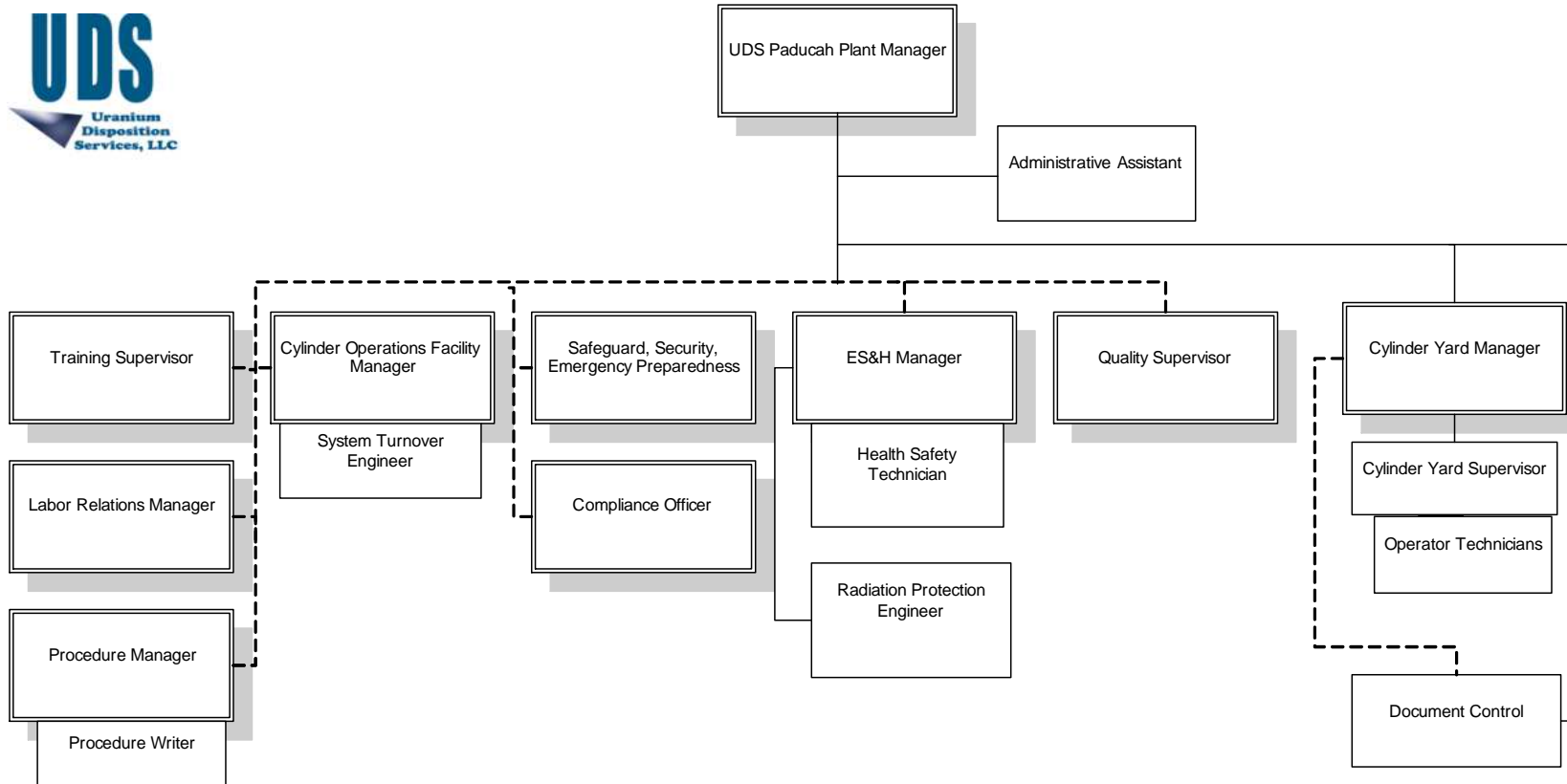
*(Current as of 1/9/2007; does not reflect Conversion Plant Operations)*





## ATTACHMENT C

### ORGANIZATIONAL CHART FOR PADUCAH



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